IN-LB Inch-Pound Units

An ACI Standard

Type Methyl Methacrylate Slurry (MMS) Polymer Overlays for Bridge and Parking Garage Deck—Specification

Reported by ACI Committee 548

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This Specification covers methyl methacrylate slurry (MMS) overlays for bridge and parking garage decks. Type MMS polymer overlay incorporates methyl methacrylate-based primer, resin filler slurry, and topcoat with selected filler and aggregate to produce a flexible, skid-resistant, and low-permeability slurry overlay. The overlay is used for new construction or rehabilitation. This Specification includes requirements for chemical components, filler, aggregates, storage and handling, surface preparation, surface profile, mixing, placement, quality control, and quality assurance.

Keywords: bridge decks; low permeability; methyl methacrylate; parking garage decks; polymer overlay; surface preparation.

CONTENTS

PART 1—GENERAL, p. 2
1.1—Scope, p. 2
1.2—Interpretation, p. 2
1.3—Definitions, p. 2
1.4—Reference standards, p. 3
1.5—Submittals, p. 3
1.6—Delivery, storage, and handling, p. 3
1.7—Surface preparation qualification, p. 3

PART 2—PRODUCTS, p. 4
2.1—Materials, p. 4

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PART 3—EXECUTION, p. 5
3.1—Surface preparation, p. 5
3.2—Mixing methyl methacrylate-based primer, resin filler slurry, and topcoat, p. 5
3.3—Overlay application, p. 5
3.4—Curing, p. 6
3.5—Joints, p. 6
3.6—Opening to traffic, p. 6

NOTES TO SPECIFIER, p. 6
General notes, p. 6
Foreword to checklists, p. 6

PART 1—GENERAL

1.1—Scope

1.1.1 This Specification covers materials and procedures for installing a methyl methacrylate slurry (MMS) polymer overlay for new construction or rehabilitation of bridge and parking garage decks as indicated in Contract Documents.

1.1.2 This Specification is incorporated by Contract Documents and provides product and installation requirements to the Contractor.

1.1.3 This Specification governs for construction within its scope, except project-specific Contract Documents govern if there is a conflict.

1.1.4 This Specification governs if there is a conflict with referenced material and testing standards.

1.1.5 The Contractor is permitted to submit written alternatives to any provisions in this Specification for consideration by the Architect/Engineer.

1.1.6 This Specification governs for MMS polymer overlay installation.

1.1.7 Ignore provisions of this Specification that are not applicable to the Work.

1.1.8 Values in this Specification are stated in inch-pound units. A companion specification in SI units is available.

1.1.9 The Notes to Specifier are not part of this Specification.

1.2—Interpretation

1.2.1 Unless otherwise explicitly stated, this Specification shall be interpreted using the following principles.

1.2.1.1 Interpret this Specification consistent with the plain meaning of the words and terms used.

1.2.1.2 Definitions provided in this Specification govern over the definitions of the same or similar words or terms found elsewhere.

1.2.1.3 Whenever possible, interpret this Specification so that its provisions are in harmony and do not conflict.

1.2.1.4 Headings are part of this Specification and are intended to identify the scope of the provision or sections that follow. If there is a difference in meaning or implication between the text of the provision and a heading, the meaning of the text governs.

1.2.1.5 Footnotes are part of this Specification. The meaning of the provision text governs in the event of a difference in meaning or implication between the provision text and a footnote to that provision.

1.2.1.6 Where a provision of this Specification involves two or more items, conditions, requirements, or events connected by the conjunctions "and" or "or," interpret the conjunction as follows:

"and" indicates that all the connected items, conditions, requirements, or events apply.

"or" indicates that the connected items, conditions, requirements, or events apply singularly.

1.2.1.7 The use of the verb "may" or "will" indicates that the Specification provision is for information to the Contractor.

1.2.1.8 The phrase "as indicated in Contract Documents" means the specifier included the provision requirements in Contract Documents.

1.2.1.9 The phrase "unless otherwise specified" means the specifier included an alternative to the default requirements in Contract Documents.

1.2.1.10 The phrase "if specified" means the specifier may have included a requirement in Contract Documents for which there are no default requirements in this Specification.

1.2.1.11 Unless otherwise stated, the inch-pound system of units is applicable to combined standards referenced in this Specification.

1.3—Definitions

accepted—determined by Architect/Engineer to be in compliance with Contract Documents.

Architect/Engineer—the architect, engineer, architectural firm, or engineering firm developing Contract Documents or administering Work under Contract Documents, or both.

broadcast aggregate—fine aggregate that is broadcast uniformly over a layer of uncured overlay slurry.

Construction Documents—written and graphic documents and specifications prepared or assembled for describing the location, design, materials, and physical characteristics of the element of a project necessary for obtaining a building permit and construction of the project.

Contract Documents—set of documents that form the basis of a contractual relationship between the Owner and Contractor or design-builder. These documents are defined by the contractual agreement, and can contain contract forms, contract conditions, specifications, drawings, addenda, and contract changes.

Contractor—the person, firm, or entity under contract for construction of Work.

drawings—graphic presentations that detail requirements for Work and may include written notes.

gel time—time required to change a flowable liquid resin into a nonflowing gel.

inspection agency—the person, firm, or entity under contract for providing inspection services.

lot or batch—volume of material produced and packaged at one time.

methyl methacrylate—solvent-free, cold-curing, two-component reactive methacrylate resin, cured through